

WHAT IS CLAIMED IS:

1. A low profile electrical connector comprising:

a center contact assembly comprising an integral housing and a spring loaded plunger contact therein; and

a shield assembly coaxial with said center contact assembly, said shield assembly comprising a slotted shield base adapted to be coupled stationary to a circuit board, and a contact ring reciprocally mounted to said shield base for relative movement thereto.

2. A low profile electrical connector in accordance with claim 1 wherein said plunger contact and said contact ring are depressible against a bias of respective spring elements, said plunger contact and said contact ring depressible to provide an overall height of the connector of about 4 mm in a retracted position.

3. A low profile electrical connector in accordance with claim 1 wherein said slotted shield base comprises a substantially cylindrical body extending along a longitudinal axis and having at least eight longitudinally extending contact beams.

4. A low profile electrical connector in accordance with claim 1 wherein said slotted shield base comprises a plurality of footings extending therefrom.

5. A low profile electrical connector in accordance with claim 1 wherein said center contact assembly comprises a spring, said spring directly contacting an engagement surface of said plunger contact.

6. A low profile electrical connector in accordance with claim 1 wherein said connector comprises a longitudinal axis, said plunger contact comprising an engagement surface which is inclined relative to said longitudinal axis, said engagement surface extending at substantially a 75 degree angle with respect to the longitudinal axis.

7. A low profile electrical connector in accordance with claim 1 wherein said center contact assembly and said shield assembly are adapted to accept a board-to-board misalignment of about 3 degrees between a first circuit board and a second circuit board.

8. A low profile electrical connector in accordance with claim 1 further comprising a cover removably coupled to said shield assembly, said cover comprising a substantially flat top surface.

9. A low profile electrical connector in accordance with claim 8 wherein said top surface includes a substantially circular perimeter, said cover comprising an extension portion radially projecting outward from said substantially circular perimeter.

10. A low profile electrical connector in accordance with claim 8 wherein said cover further includes at least one finger grip or vacuum pickup surface extending upwardly from said top surface.

11. A low profile coaxial electrical connector comprising:

a substantially cylindrical center contact assembly comprising an integral conductive housing, a contact plunger reciprocally mounted within said housing, and a first spring biasing said plunger contact to an extended position relative to said housing, said plunger contact compressible against a bias of said first spring to a retracted position; and

a substantially cylindrical shield assembly coaxial with said center contact assembly, said shield assembly comprising a slotted shield base having an outer surface and adapted to be fixedly coupled to a circuit board, a contact ring reciprocally mounted to said shield base and movable thereto, and a second spring biasing said contact ring to an extended position relative to said shield base, said contact ring compressible against a bias of said second spring to a retracted position;

wherein said plunger contact and said contact ring are depressed to produce an overall height of the connector of about 4 mm when said plunger contact and said slotted member are in said retracted position.

12. A low profile electrical connector in accordance with claim 11 wherein said slotted shield base comprises a substantially cylindrical body extending along a longitudinal axis and having at least eight longitudinally extending contact beams, thereby providing multiple conductive paths in parallel through said shield base.

13. A low profile electrical connector in accordance with claim 11 wherein said slotted shield base comprises a plurality of footings extending therefrom.

14. A low profile electrical connector in accordance with claim 11 wherein said plunger contact comprises an engagement surface, said first spring directly contacting said engagement surface.

15. A low profile electrical connector in accordance with claim 11 wherein said connector comprises a longitudinal axis, said plunger contact comprising an engagement surface which is inclined relative to said longitudinal axis, said engagement surface extending at substantially a 75 degree angle with respect to the longitudinal axis.

16. A low profile electrical connector in accordance with claim 11 wherein said center contact assembly and said shield assembly are adapted to accept a board-to-board misalignment of about 3 degrees between a first circuit board and second circuit board.

17. A low profile electrical connector in accordance with claim 11 further comprising a cover removably coupled to said shield assembly, said cover comprising a substantially flat top surface.

18. A low profile coaxial electrical connector comprising:

a substantially cylindrical center contact assembly comprising an integral conductive housing, a contact plunger reciprocally mounted within said housing, and a first spring biasing said plunger contact to an extended position relative to said housing, said plunger contact compressible against a bias of said first spring to a retracted position; and

a substantially cylindrical shield assembly coaxial with said center contact assembly, said shield assembly comprising a slotted shield base having an outer surface and adapted to be fixedly coupled to a circuit board, a contact ring reciprocally mounted to said shield base and movable thereto, and a second spring biasing said contact ring to

an extended position relative to said shield base, said contact ring depressible against a bias of said second spring to a retracted position;

wherein said center contact assembly and said shield assembly are adapted to accept a board-to-board misalignment of about 3 degrees between a first circuit board and second circuit board.

19. A low profile electrical connector in accordance with claim 18 wherein said slotted shield base comprises a substantially cylindrical body extending along a longitudinal axis and having at least eight longitudinally extending contact beams.

20. A low profile electrical connector in accordance with claim 18 wherein said slotted shield base comprises a plurality of footings extending therefrom.

21. A low profile electrical connector in accordance with claim 18 wherein said plunger contact comprises an engagement surface, said first spring directly contacting said engagement surface.

22. A low profile electrical connector in accordance with claim 18 wherein said connector comprises a longitudinal axis, said plunger contact comprising an engagement surface which is inclined relative to said longitudinal axis, said engagement surface extending at substantially a 75 degree angle with respect to the longitudinal axis.

23. A low profile electrical connector in accordance with claim 18 further comprising a cover removably coupled to said contact ring, said cover comprising a substantially flat top surface.

24. An electronic package comprising:

a first circuit board and a second board having a separation therebetween;

a shield assembly mounted stationary to said first circuit board, said shield assembly comprising a slotted shield base coupled stationary to said first circuit board, and a contact ring reciprocally mounted to said shield base for relative movement thereto from an extended position relative to said first circuit board to a retracted position when contacted by said second circuit board; and

a center contact assembly coaxial with and internal to said shield assembly, said center contact assembly comprising an integral housing mounted stationary to said first circuit board and a spring loaded plunger contact reciprocally coupled to said housing and movable between an extended position and a retracted position relative to said housing, said plunger contact depressed by said second circuit board to establish electrical connection therewith.

25. An electronic package in accordance with claim 24 wherein said separation is about 4 mm or less.